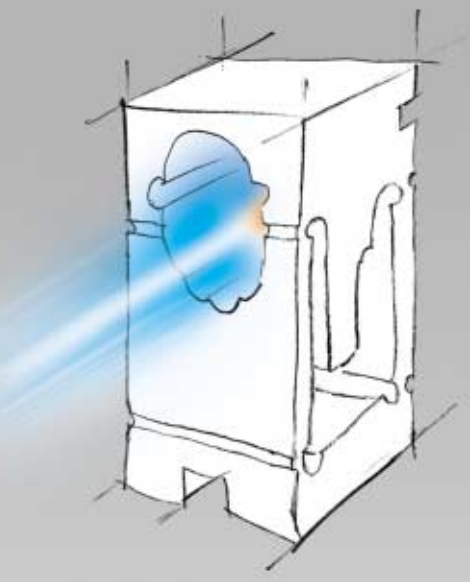
sartorius

Sartorius Factory Series

For serious cost-cutting and quality assurance



Factory series:
In-process quality control – fast and precise

If you cannot afford to make any trade-offs in quality or reliability because your processes have to comply with stringent quality management standards, a Factory series scale is just right for you.

Sartorius Factory scales: meet the whole family!
This extended family features weighing capacities from 600 g with a readability of 0.001 g to 300 kg with a readability of 2 g. All scales of this series are verifiable for use in legal metrology (legal for trade) and many have already been verified at the Sartorius factory. Moreover, they are manufactured in compliance with ISO 9001.

FB scales
for standard applications up to a weighing capacity of 64 kg.

FC scales
with sophisticated, yet easy-to-run applications, product data memory and data logging capability; for applications up to a weighing capacity of 64 kg. Ports for connecting a bar code scanner and a PC keyboard for especially convenient input of product data. The easy-to-read, graphical user display can also be used as a remote indicator for individual operator guidance (XBPI protocol functions).

FD scales
for easy, heavy-duty weighing or running standard applications in a range up to 300 kg. Wide selection of user-installable accessories to set up FDs as floor platform scales.

Profit from the many years of experience that Sartorius has in crafting outstanding industrial scales and from the use of the most advanced weighing technology. Factory series scales combine the rugged design so indispensable in tough industrial environments and the high accuracy of sensitive measuring equipment used in labs.

At the core of these precision industrial scales is a robotically etched monolithic weigh cell featuring 21st century technology. By working perfectly with complex filter algorithms, this cell ensures the reliability of the scale's weighing results. For your production operations, this means:

Higher long-term stability of the weighing data;

Improved response when the scale is exposed to strong temperature fluctuations;

High stability when a load is off-centered on the scale's load plate;

Outstanding repeatability and linearity;

Exceptional resistance to mechanical stress;

Electrically compensable preload up to 20% of the weighing capacity.

All Factory series scales are equipped with a built-in motorized calibration weight that allows the accuracy of the scale to be easily checked at the touch of a key. Moreover, it's up to you to decide on which specifications are most important for accomplishing your weighing tasks:

Resolution
Important, especially if small quantities frequently need to be weighed

Linearity
If you plan to use the entire weighing capacity range

Off-center loading
If you need an accurate weight reading no matter where your samples land on the load plate

Repeatability
A key specification for comparative weighing

Temperature stability
Important when you need to weigh at different ambient temperatures (e.g., for weighing "on the move")

Stabilization time
Essential if you require fast readings

Hysteresis
This specification is optimal if the scale shows the same readings both for additive and subtractive weighing

In addition to providing precise weighing results and practical operator guidance features, Factory scales offer a wide variety of options for integration into complex manufacturing sequences. These include, for example:

SartoConnect
for transferring weighing data to a PC for further processing in application programs;

Sartorius WinScale
driver software with verifiable PC Alibi memory and scale display emulation on your PC – it's like having a second indicator;

Networking options
for centralized control of up to 31 scales that can be addressed;

Profibus adapter
for Profibus DP; designed to connect scales to process logic controllers, such as the Siemens S7;

Sartorius NICE Label Express
the software for customizing printouts.

The Factory series at a glance

Design a

Design b

Design c

Design d

FB display

FC "Multiple Application" display

FD "Weighing" display

FD "Multiple Application" display

Weighing capacity kg	Readability g	Load plate W×D (mm)
FB models		
0.62	0.001	∅ 130
2.2	0.01	216×200
6.2	0.01	216×200
6.2	0.1	216×200
6|12	0.1|0.2	400×300
12	0.1	216×200
16	0.1	400×300
8|16|34	0.1|0.2|0.5	400×300
8|16|34	0.1|0.2|0.5	400×300
34	0.1	400×300
64	1	400×300
64	1	400×300
64	0.1	400×300
FC models		
0.62	0.001	∅ 130
2.2	0.01	216×200
6.2	0.01	216×200
6.2	0.1	216×200
6|12	0.1|0.2	400×300
12	0.1	216×200
16	0.1	400×300
8|16|34	0.1|0.2|0.5	400×300
34	0.1	400×300
64	1	400×300
64	0.1	400×300
FD models		
64	1	560×450
64	1	560×450
150	1	800×600
150	1	800×600
300	2 (20 for verif.)	800×600
300	2 (20 for verif.)	800×600

* Modifications to standard scales: front-mounted, tiltable display holder; 2.7-m cable between platform and display; additional base cover plate to cover cable channel; interface port; 25-contact D-SUB female connector covered by rubber cap

** Models verifed at the factory by the manufacturer for use in legal metrology

IP protection	Design	Order no. of standard models	Verification scale interval	Minimum capacity in g acc. to CD	Order no. of models
54	b	FB06BBE-S	0.01**	0.02	FB06BBE-S0CE
54	a	FB2CCE-S	0.1**	0.5	FB2CCE-S0CE
54	a	FB6CCE-H	0.1**	0.5	FB6CCE-H0CE
54	a	FB6CCE-S	1**	5	FB6CCE-S0CE
65	c	FBG12EDE-P	1**	5	FBG12EDE-P0CE
54	a	FB12CCE-S	1**	5	FB12CCE-S0CE
65	c	FBG16EDE-H	1**	5	FBG16EDE-H0CE
65	c	FBG34EDE-P	1**	5	FBG34EDE-P0CE
65	*	FBG34EDE-P0000B	–	–	–
65	c	FBG34EDE-H	1**	5	FBG34EDE-H0CE
65	c	FBG64EDE-S	10**	50	FBG64EDE-S0CE
65	*	FBG64EDE-S0000B	–	–	–
44	c	FBG64EDE-H	–	–	–
54	b	FC06BBE-S	0.01**	0.02	FC06BBE-S0CE
54	a	FC2CCE-S	0.1**	0.5	FC2CCE-S0CE
54	a	FC6CCE-H	0.1**	0.5	FC6CCE-H0CE
54	a	FC6CCE-S	1**	5	FC6CCE-S0CE
65	c	FCG12EDE-P	1**	5	FCG12EDE-P0CE
54	a	FC12CCE-S	1**	5	FC12CCE-S0CE
65	c	FCG16EDE-H	1**	5	FCG16EDE-H0CE
65	c	FCG34EDE-P	1**	5	FCG34EDE-P0CE
65	c	FCG34EDE-H	1**	5	FCG34EDE-H0CE
65	c	FCG64EDE-S	10**	50	FCG64EDE-S0CE
44	c	FCG64EDE-H	–	–	–
65	d	FD64FEG-S	10**	50	FD64FEG-S0CE
65	d	FD64FEG-S000U	10**	50	FD64FEG-S0CEU
65	d	FD150IGG-H	10**	50	FD150IGG-H0CE
65	d	FD150IGG-H000U	10**	50	FD150IGG-H0CEU
65	d	FD300IGG-H	20**	1,000	FD300IGG-H0CE
65	d	FD300IGG-H000U	–	–	–

FB application programs:
Counting
Weighing in percent
Averaging (animal weighing)
Recalculation
Net-total manual formulation
Density determination
Checkweighing

FC application programs:
Toggle between weight units
Counting
Weighing in percent
Averaging (animal weighing)
Recalculation
Calculation of weights | values
Density determination
Checkweighing
Time-controlled functions
Totalizing
Net-total manual formulation
Statistics
Differential weighing

FD "Weighing" application programs:
Toggle between weight units

FD "Multiple" application programs:
Toggle between weight units
Counting
Checkweighing
Net-total formulation

The letter "U" in the order no. stands for "multiple applications."

Convincing quality standards

Built-in isoTEST function
At the touch of the unique isoTEST key, the Factory series scale calibrates and adjusts itself automatically using a built-in calibration weight. The scale also outputs a test record via its standard interface port.

Your advantages:
No more pain with having to handle heavy external test weights; and you won't have to spend time and money on purchasing and upkeeping expensive test weights.

This function assures ISO-compliant manufacturing operations by recording and documenting calibration and adjustment procedures.

High resolution
High internal resolution guarantees reliable weight readouts.

Your advantages:
The weighing data that you transmit to QA control systems has greater accuracy.

Reference weights are precisely determined, e.g., in counting applications.

High manufacturing quality
All Sartorius scales are manufactured in compliance with ISO 9001 and feature advanced, high-performance technology and premium-grade materials.

Your advantages:
Low maintenance.

Long service life.

Reliable weighing data over the long term.

Practical application programs
Factory Series scales come "loaded" with numerous built-in application programs that can be individually configured.

Your advantages:
You obtain exactly the right scale you need for your application.

Ease of operation
The scales' display prompts are in plain English for easy operator guidance. The maximum weighing capacity and the resolution are continuously shown on the high-contrast, backlit display.

Your advantages:
No more long-drawn-out training for the operator.

Excellent readability even under adverse lighting conditions.

Fast weighing results
Enhanced technology allows fast weighing – even under tough environmental conditions.

Your advantages:
You can be productive at a fast pace while obtaining reliable, "rock-steady" weighing data.

Choice of installation options
The variety of designs offers a wide selection of installation options.

Your advantages:
You can be flexible in choosing the place in which to set up your scale.

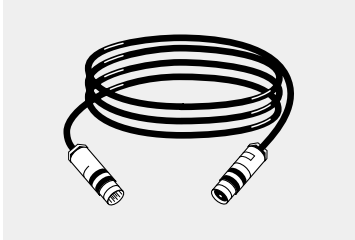
```
--------------------
05.07.05     12:23:43
Type             ISI20
Vers.     2.1812.11.6
Model          FD64FEG
Type         IS64FEG-S
S.-No.        50209432
--------------------
Internal Calibration
Nom   +      30.000 kg
Diff. +       0.001 kg
Internal Adjustment
Diff. +       0.000 kg

05.07.05     12:23:45
Name:

--------------------
```

Accessories

FB|FC|FD	Order No.
Strip|label printer verifiable for legal metrology, with thermal print head, connecting cable and external power supply, 120 volts	YDP12IS-0CEUV
Strip|label printer verifiable for legal metrology, with thermal print head, connecting cable and external power supply, 220 volts	YDP04IS-0CEUV
Round male connector for customizing own cables	69QC0010
"Sartorius NICE Label Express" configuration software for creating customer-specific printouts (not for FB scales)	YAD02IS
Sartorius serial Profibus interface for RS-232C	YSPI3-232
Sartorius serial Profibus interface for RS-485	YSPI3-485
SartoConnect PC program set (for transferring weights to a PC running under the Windows® 95/98/NT operating system and for further processing in applications (Excel, Access); incl. cable for connecting the scale to the PC (12/9-pin, 1.5 m)	YSC01I
Sartorius WinScale (scale driver software for use under Windows® 95/98/2000/NT; displays current readouts on the PC monitor and provides secure memory (verifiable) for storing data that is subject to legal control; RS-232C interface cable required RS-485 interface cable available on request	YSW03 YCC01-09ISM5
Configuration software (PC, DOS) for backing up and restoring scale settings	YAD01IS

FB|FC	Order No.
Data printer, verifiable for use in legal metrology; with date, time and statistics functions	YDP03-0CE
5 rolls of printer paper, each 50 m for YDP03-0CE	6906937
Interface cable, for direct connection to data printer YDP03-0CE	YCC01-0019M3
External rechargeable battery pack	YRB06Z
External checkweighing display (red/green/red) with angular bracket for fastening to a column	YRD14Z
RS-485 interface port (XBPI protocol) for FBG|FCG models	YDO01FG
RS-485 interface port (XBPI protocol) for FB|FC-CCE|BBE models	YDO02F
Dual data interface for FB|FC-CCE|BBE models (printer and bar code scanner|PC keyboard)	YDO03F
Dual data interface for FBG|FCG models (printer and bar code scanner|PC keyboard)	YDO04FG
Hanger for under-scale weighing, M6	69EA0040
FB|FC display holder, front-mounted (continuously adjustable; can also be used as a wall-mounting bracket)	YDH01F
Spare dust cover for use during operation	6960FB02
Bar code scanner (with YDO03F or YDO04FG interface)	YBR02FC
Roller conveyor (stainless steel) for FBG|FCG models	YRC01EDS
Roller conveyor (painted) for FBG|FCG models	YRC01EDA
Cable for connecting the weighing platform to the display and control unit, 2.7 m (for FB|FC up to 12 kg)	YCC01-19M3
Cable for connecting the weighing platform to the display and control unit, 2.7 m (for FB|FC from 16 kg to 34 kg)	YCC01-18M3
Cable for connecting a CP balance as a reference scale	YCC01-02ISM3
Flow rate controller for pumps and feed units with analog or pulse interfaces (can be connected using adapter cable YCC01-0016M3)	YFC02Z
Wrap-around load plate for models FB6CCE-S, FB6CCE-S0CE, FC6CCE-S, FC6CCE-S0CE, FB12CCE-S, FB12CCE-S0CE, FC12CCE-S, FC12CCE-S0CE	YLP01
Benchtop AC adapter (power supply), IP65, 3-m primary cable, 1.5-m secondary cable	6971899

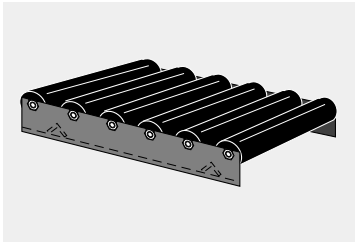
FD	Order No.
Roller conveyor (stainless steel) for FD-FEG models	YRC01FES
Roller conveyor (stainless steel) for FD-IGG models	YRC01IGS
In-use dust cover for display unit	YDC01IS
Floor stand (stainless steel) for display unit and 120V|220V printer, YDP02IS-0CEV and external power supply	YDH04IS
Floor stand (stainless steel) for display unit, with holder for external power supply	YDH03IS
Stainless steel benchtop holder (column) for display unit	YDH01IS
Additional accessories available on request (for example, paper rolls|labels for printers)	



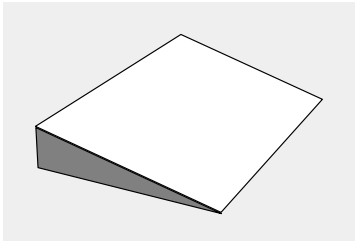
Adapter cable

Data printer

Floor stand



Roller conveyor



Drive-on ramp

Sartorius AG
Weender Landstrasse 94–108
37075 Goettingen, Germany

Phone +49.551.308.0
Fax +49.551.308.3289

www.sartorius.com

Specifications subject to change without notice.
Printed in Germany on paper bleached without any use of chlorine.
W/sart-227 · G
Publication No.: WF-1005-e05065
Order No.: 98649-003-48